

SPUT

Date: Tuesday, 12/18/2007 10:46:07 AM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : BRACKET ASSEMBLY
 Job Number : 36400
 Estimate Number : 10291
 P.O. Number :
 This Issue : 12/18/2007 S.O. No. :
 Prsht Rev. : NC Part Number : D3183044
 Drawing Number : D3183 REV C1
 Project Number : N/A
 Drawing Revision : C1
 Material :
 Due Date : 1/12/2008 Qty: 16 Um: Each
 First Issue : 11 Type : MACHINED PARTS
 Previous Run : 34514
 Written By :
 Checked & Approved By :
 Comment : Est Rev: Pick: A 04.02.18 New issue KJ/DS

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M174B2000X01500 17-4 SS Bar



Comment: Qty.: 0.4812 f(s)/Unit Total: 3.8497 f(s)
 Material: 17-4 SS Bar per AMS 5604/5643
 (M17-4-B1.500x02.000)
 Identify for D3183-4
 Batch: 17478

2F 08/01/08

2.0 BAND SAW BAND SAW



Comment: BAND SAW
 Cut blanks: (1.500" x 2.000") 5.500" long

2F 08/01/08

3.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine D3183-4 as per Folio FA322 and Dwg D3183
 Identify as D3183-4

2-Deburr

3-Scribe batch number

(PRO) Last Piece →

4.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

2F 08/01/08 (13)

2F 08/01/08 (13)

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 36400

Part Number: D3183044

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

36 08.01.16

(13)

6.0

D312121

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D3121-21 Bolt B36608X26

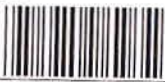
mk 08/01/20

(13)

7.0

D3183045

Bearing Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D3183-045 Bearing Ass B36369X8

B36638X18

mk 08/01/20

(13)

8.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble D3183-043 as per Dwg D3183.

mk 08/01/20

(13)

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

36 08.01.20

(13)

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 88

8/1/21 50

(13x)

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08.01.21

Job Completion



mk 2008/1/21

(13x)

DART AEROSPACE LTD		Work Order:	36400
Description: Bracket		Part Number:	D3183-4
Inspection Dwg: D3183	Rev: C1	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

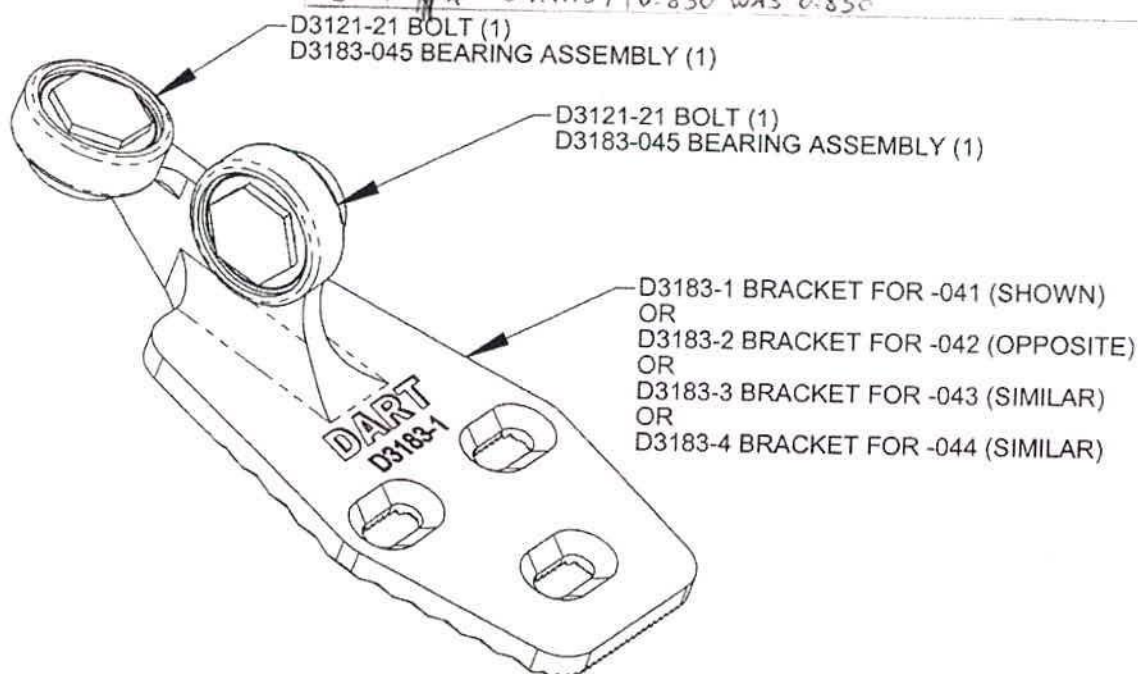
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	R.190	/			
R0.063	+/-0.010	.063	/			
0.182	+/-0.010	.181	/			
0.070	+/-0.010	.070	/			
0.100	+/-0.010	.100	/			
Ø0.201 x 0.100	+/-0.010	Ø.200 x .099	/			
0.182	+/-0.010	.181	/			
5.32	+/-0.030	5.327	/			
5.036	+/-0.010	5.036	/			
2.120	+/-0.010	2.120	/			
1.290	+/-0.010	1.288	/			
0.365	+/-0.010	.367	/			
0.218	+/-0.010	.216	/			
1.030	+/-0.010	1.040	/			
1.90	+/-0.030	1.890	/			
1.012	+/-0.010	1.012	/			
Ø0.201 x 0.100	+/-0.010	Ø.200 x .100	/			
0.182	+/-0.010	.182	/			
0.786	+/-0.010	.790	/			
Ø0.392	+0.002/-0.000	Ø.393	/			
R0.19	+/-0.030	R.190	/			
3.954	+/-0.010	3.955	/			
0.162	+/-0.010	.162	/			
R0.19	+/-0.030	R.190	/			
R0.25	+/-0.030	R.25	/			
4.26	+/-0.030	4.265	/			
2.800	+/-0.030	2.800	/			
Calculated dimension						
0.162	+/-0.010	.162	/			
0.615	+/-0.010	.620	/			
0.435	+/-0.010	.431	/			
0.200	+/-0.010	.200	/			
0.381	+/-0.010	.385	/			
0.032	+/-0.010	.032	/			

Measured by: SA	Audited by: SF	Prototype Approval:	N/A
Date: 08/01/12	Date: 08/01/12	Date:	N/A

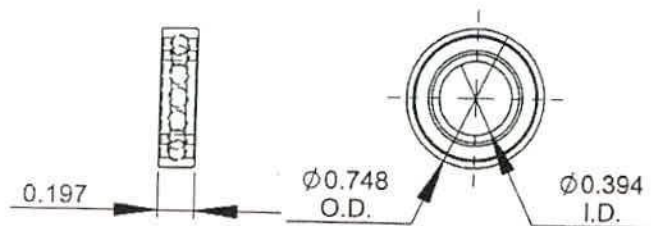
Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue P/O D3183-044	KJ/RF	
B	04.03.15	Changes as per revision C	KJ/JLM/RF	
C	04.06.15	Dimension 2.800 was 2.080; removed 1.155, 0.36 dimensions	KJ/JLM	
D	06.03.09	Dwg Rev update	KJ/JLM	

DART

DESIGN #	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1
A	03.01.24	NEW ISSUE	
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
C1	04.11.09	0.830 WAS 0.850	

RELEASED
04 03 01

D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



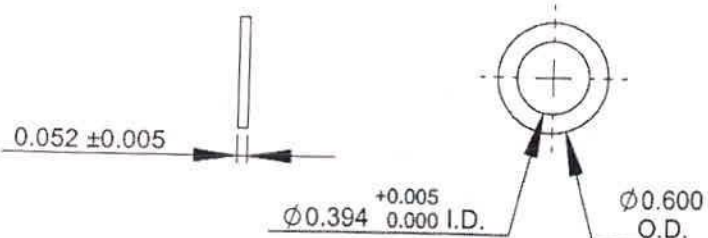
D3183-5 BEARING:
SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES

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WORK ORDER
NO. 36400

D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R)
ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

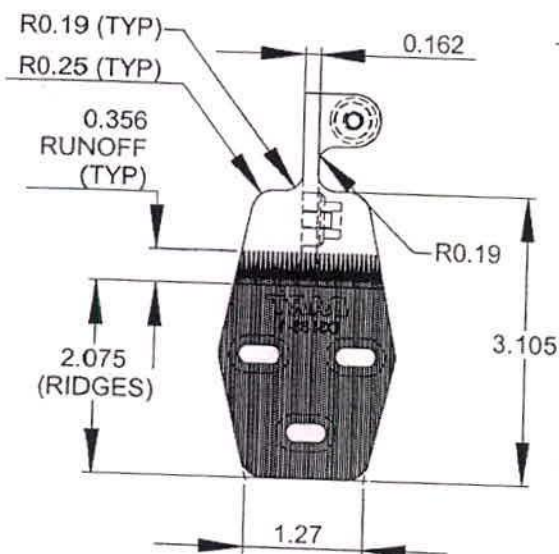
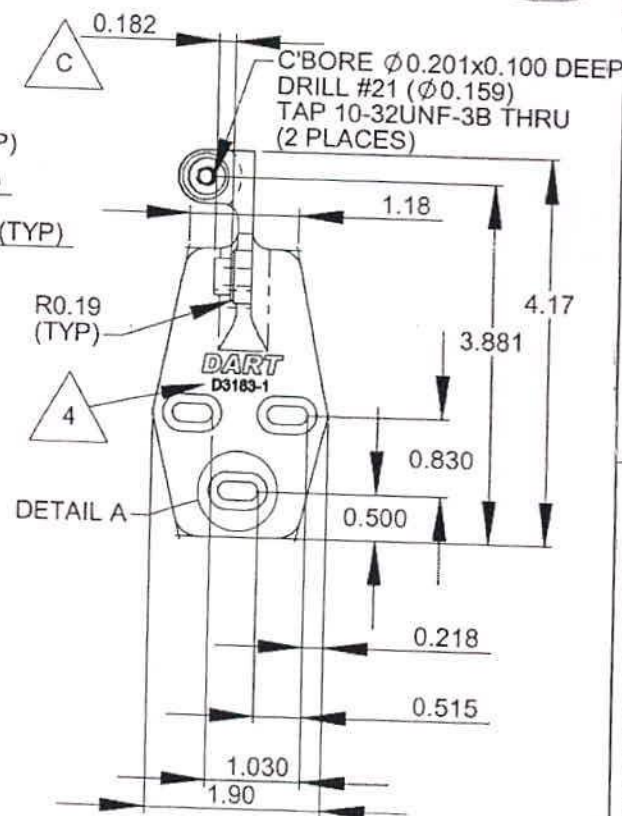
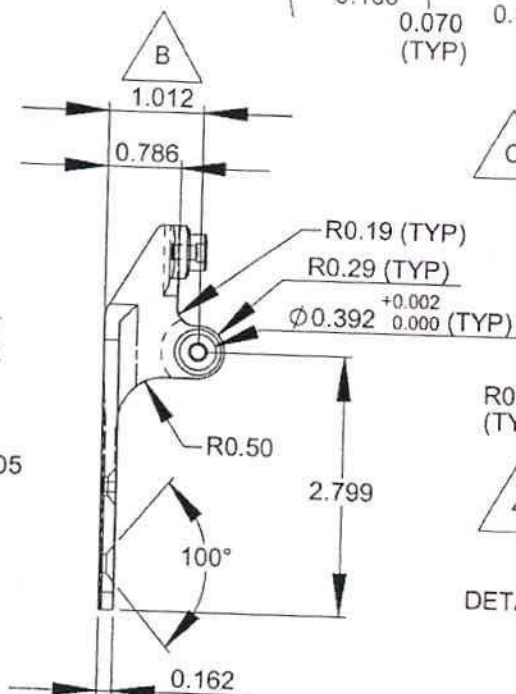
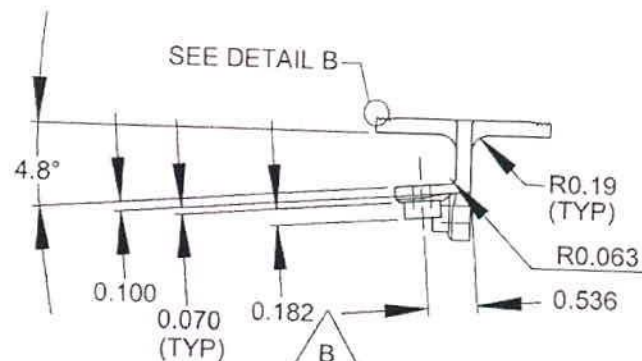


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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA
DATE 04.02.17	DRAWING NO. D3183	REV. C
TITLE BRACKET ASSEMBLY	SHEET 2 OF 4	SCALE 1:2

RELEASED
04.03.01

**D3183-1 BRACKET SHOWN
D3183-2 BRACKET OPPOSITE**

- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

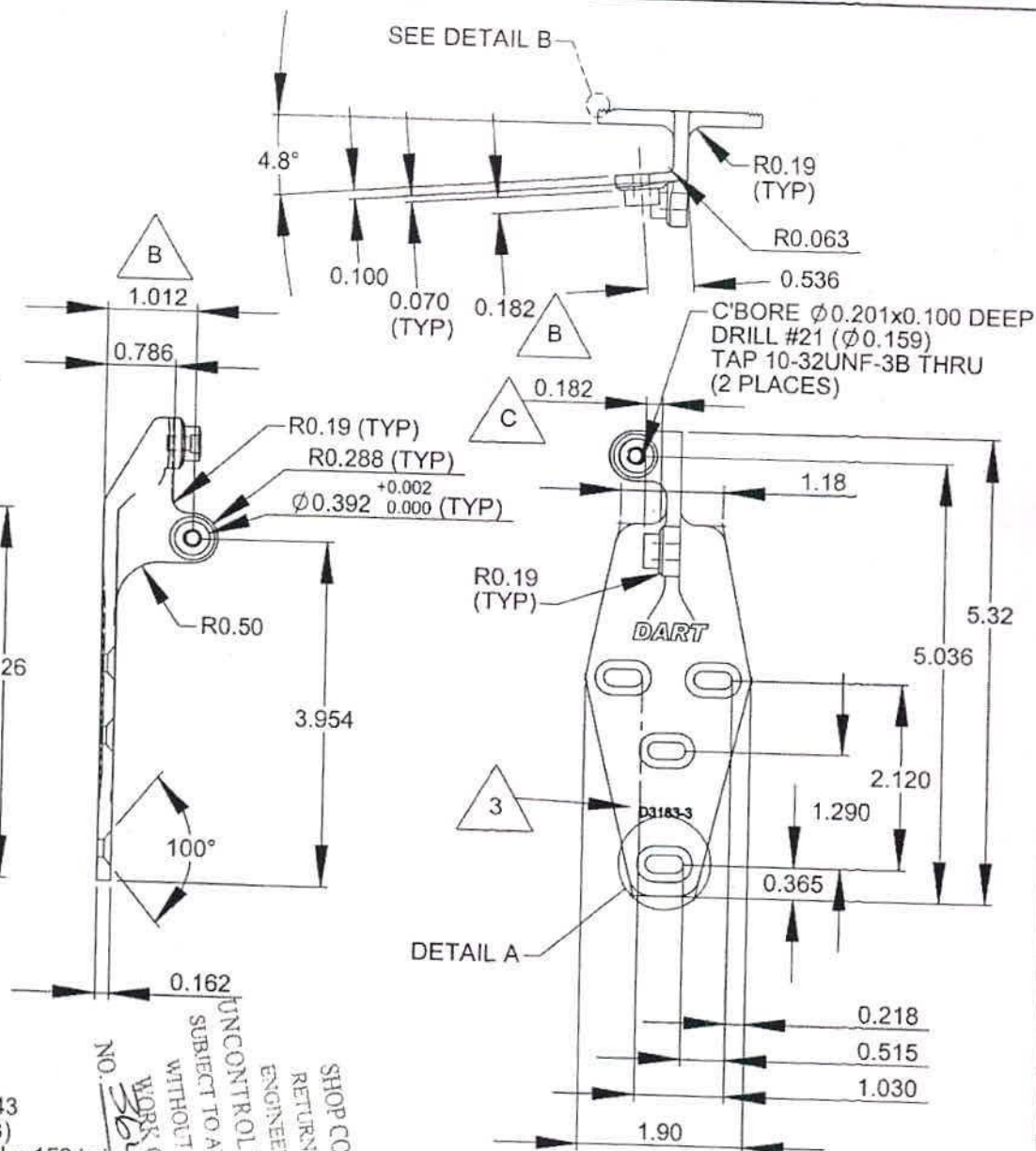
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DATE 04.02.17	DRAWING NO. D3183	REV. C
	TITLE BRACKET ASSEMBLY	SHEET 3 OF 4
		SCALE 1:2



D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)
D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) ENGRAVE DART P/N & LOGO AS SHOWN
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

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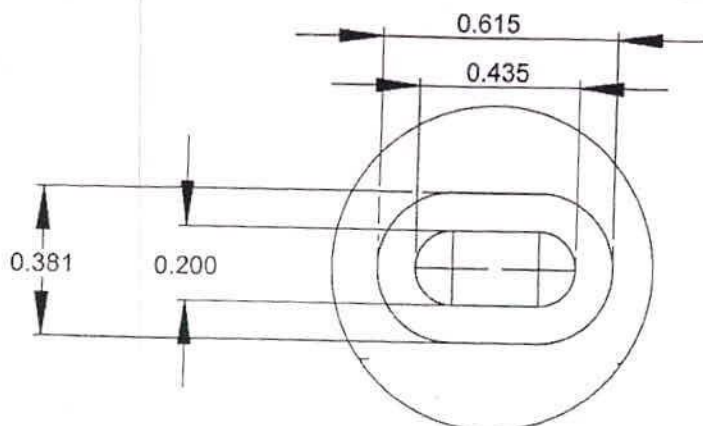
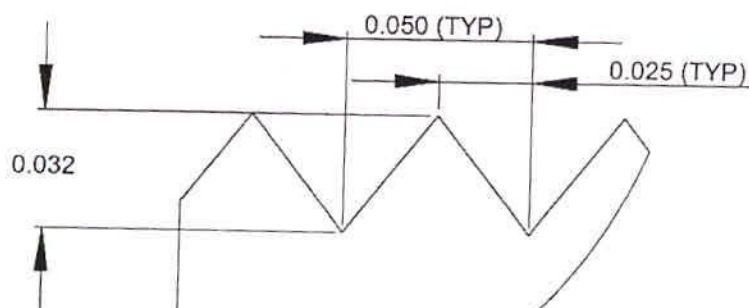
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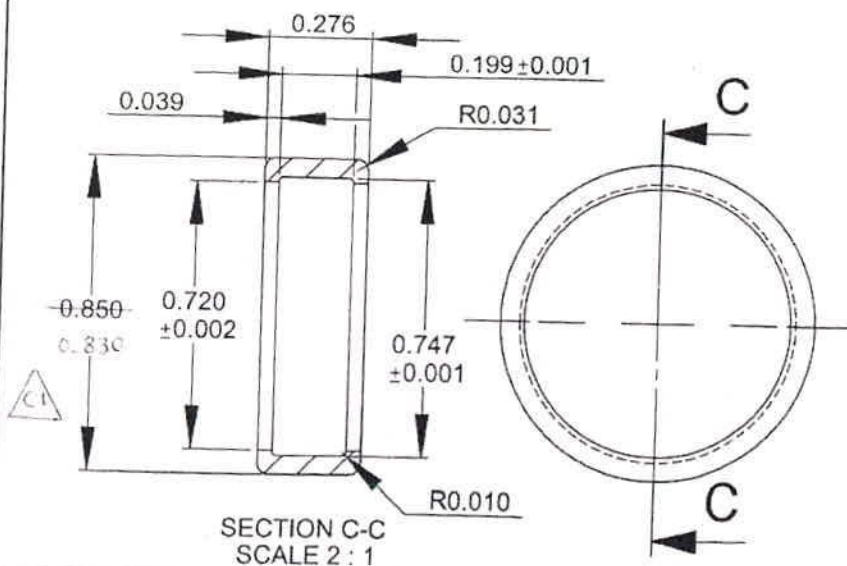
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DESIGN #	DRAWN BY UP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3183	REV. C SHEET 4 OF 4
DATE 04.02.17	TITLE BRACKET ASSEMBLY	SCALE 1:1	

DETAIL A (2 : 1)**RELEASED**
04.03.01DETAIL B (20 : 1)

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NO. 36400

**D3183-9 CAP**

- 1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

- 1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: AS Date: 08.01.21
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08.01.13	3.0	- 1 part scrap - part came out of vis. Rc. mat. part corners too Round.	<u>AS</u> 08/01/21	Scrap and Destroy and Replace Qty x 1 Batch <u>M19478</u>	<u>SD</u> 08.01.13	<u>AS</u> 08/01/16	<u>AS</u> 08/01/16	<u>AS</u> 08/01/16

NOTE: Date & initial all entries